



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/135,183	08/17/1998	CYNTHIA C. BAMDAD	A-65909-1/RF	8993

7590

04/09/2003

RICHARD F TRECARTIN
FLEHR HOHBACH TEST ALBRITTON AND HERBERT
SUITE 3400
FOUR EMBARCADERO CENTER
SAN FRANCISCO, CA 941114187

EXAMINER

MARSCHER, ARDIN H

ART UNIT

PAPER NUMBER

1631

DATE MAILED: 04/09/2003

29

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/135,183

Applicant(s)

BAMDAD, CYNTHIA C.

Examiner

Ardin Marschel

Art Unit

1631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2002 and 03 September 2002 .
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-13, 16 and 23-25 is/are rejected.
- 7) ☒ Claim(s) 10, 13-15 and 17-22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 September 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 25 .
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____ .

DETAILED ACTION

Applicants' arguments, filed 5/13/02 and 9/3/02, have been fully considered and they are deemed to be persuasive regarding previously set forth rejections. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn.

Upon reconsideration, the following rejections and/or objections are newly applied.

They constitute the complete set presently being applied to the instant application.

TITLE:

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The present title is directed to electronic detection which is deemed a method whereas both methods as well as electrode containing compositions are claimed.

PRIOR ART REJECTION:

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-9, 11-13, 16, and 23-25 are rejected under 35 U.S.C. 102(e)(2) as being clearly anticipated by Kayyem et al. (P/N 6,090,933).

It is firstly noted that Kayyem et al. (P/N 6,090,933) was newly cited in an IDS, filed after the most recent Non-final Office action, without a certification under 37 CFR §

Art Unit: 1631

1.97(e). Such a reference may be utilized in a prior art rejection and the Office Action may be made Final.

In column 3, lines 11-27, Kayyem et al. discloses a method with a electrode containing composition utilized therein. The electrode composition contains a covalently attached first probe nucleic acid comprising a conductive polymer is attached to said electrode. The composition also contains a second probe with a covalently attached ETM. The target nucleic acid is composed of a first domain which may hybridize to the first probe, that is, capture probe as instantly claimed, and a second domain which may hybridize to the second probe. Thus, the method detects target presence via the hybridization of said first and second probes which thus forms a sandwich which results in electron transfer from the second probe's ETM to the electrode. The target thus has a domain which hybridizes to the second probe and thus does not hybridize with the first probe in the detection complex as described in the reference. The conductive polymer as cited above is described in the reference in column 8, line 45, through column 15, line 44. These polymers are attached to the electrode surface at one end and to the first probe at the other end which extends into the solution for being available for target hybridization. Thus they are oriented approximately in parallel as to attachment and probe ends as well as approximately perpendicular to the electrode surface as also required for the monolayer practice as instantly claimed and described in the specification on page 11, lines 19 et seq. These conductive polymers are inherently self-assembled due to reactive moieties which are polymerized during their formation. Ferrocene as an ETM is disclosed in column 33,

lines 29-40, as required in instant claim 3. The presence of a plurality of ETM on a nucleic acid such as a probe is cited in column 28, lines 22-36, as required in instant claim 4. An amplifier probe is cited in column 41, lines 41-56, as required in instant claim 6. An extender of the capture probe for thus facilitating electron conductivity is disclosed in the reference in column 41, line 57, through column 42, line 8, as an intervening nucleic acid which extends the capture probe electron transfer capabilities thus anticipating the extender probe limitations as required in instant claim 7. The conductive monolayer includes passivation agents as disclosed in column 26, lines 5-51, such as insulators, as required in instant claim 8. Thus, the above instant claims are deemed anticipated by the reference.

The disclosure is objected to because of the following informalities:

In claim 13, line 1, the word "sequence" appears to be misspelled.

Appropriate correction is required.

Claims 10, 14, 15, and 17-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

No claim is allowed.

THIS ACTION IS MADE FINAL. Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

Art Unit: 1631

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

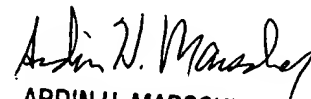
Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993)(See 37 CFR § 1.6(d)). The CM1 Fax Center number is either (703)308-4242 or (703)305-3014.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ardin Marschel, Ph.D., whose telephone number is (703)308-3894. The examiner can normally be reached on Monday-Friday from 8 A.M. to 4 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, Ph.D., can be reached on (703)308-4028.

Any inquiry of a general nature or relating to the status of this application should be directed to Legal Instrument Examiner, Tina Plunkett, whose telephone number is (703)305-3524 or to the Technical Center receptionist whose telephone number is (703) 308-0196.

April 4, 2003


ARDIN H. MARSCHEL
PRIMARY EXAMINER